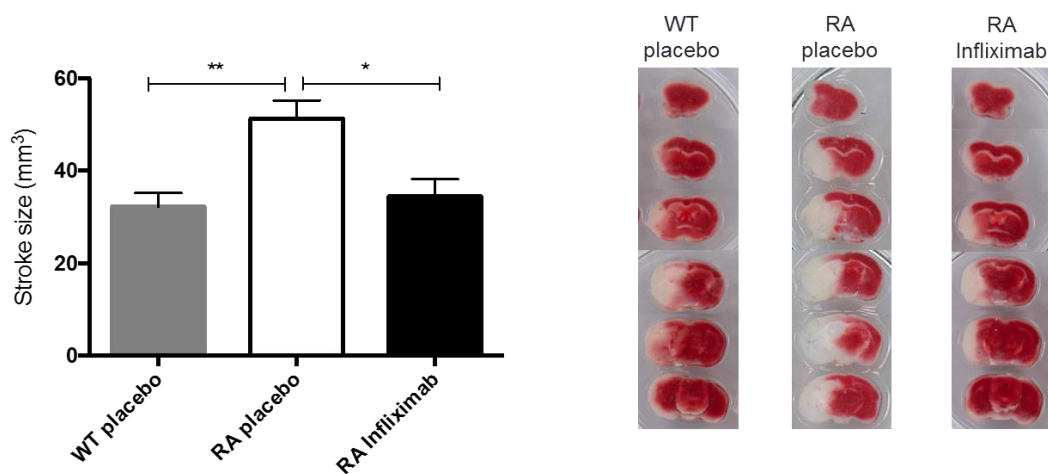


Ischemic Stroke in Rheumatoid Arthritis

Rheumatoid Arthritis (RA) is a chronic inflammatory disorder where incidence and severity of cardiovascular diseases such as myocardial infarction are increased.

However, data on the incidence and outcome of stroke in these patients are unclear. Thus, we investigated outcome after Ischemia/Reperfusion (I/R) brain injury in a mouse model of RA and in this setting assessed for the role of the tumour necrosis factor- α (TNF- α) inhibitor Infliximab.

RA mice were treated with vehicle (RA/WT) or Infliximab (RA Infliximab) for 4 weeks, before undergoing I/R brain injury. RA-animals displayed larger strokes and poorer neurological performance compared to wild types.



In addition, Immunohistochemistry on brain sections revealed increased inflammation, oxidative stress and Blood-Brain-Barrier (BBB)-damage. Treatment with Infliximab of RA mice restored these alterations.

In conclusion, this study demonstrates that RA associates to worse stroke-outcome via exacerbated BBB degradation. Infliximab-treatment restored the phenotype of RA-mice to baseline thus, clearly linking RA to adverse stroke-outcome in mice and indicate an approved TNF- α inhibitor (infliximab) as a potential strategy to reduce stroke-burden in this setting.

* A complete report on this study entitled "Tumour Necrosis Factor- α Inhibition Improves Stroke Outcome in a Mouse Model of Rheumatoid Arthritis" is currently in press on *Nature Scientific Reports* and will soon be available online.